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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10:085,838	02/27/2002	Bradley F. Bowden	SP01-329	1759

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CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER

DERRINGTON, JAMES H

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,838

Applicant(s)

BOWDEN ET AL.

Examiner

James Derrington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 14-25, 27-28 and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hiroshi et al (5,244,585).

This reference discloses a method for forming an optical perform comprising producing silica particles i.e. soot, by flame hydrolysis (Col. 4, line 65 ff); spray drying to form agglomerates or granules (examples 2, 5 and 7); pressing to form a body and consolidating by heat. With regard to limitations of the dependent claims, Hiroshi et al also sets forth the following additional disclosure.

Purification with chlorine gas at elevated temperature is shown at Col. 6, lines 54-67). With regard to claim 5, it would be well within the purview of one of ordinary skill in the art to determine purification temperatures lower than 1250 °C such as 1100 °C dependent on the level of impurities desired to be removed. Spray dryers use nozzles for formation of droplets. It does not appear that Hiroshi et al use a dispersant but binders are set forth at (Col. 4, lines 9-18), e.g. polyethylene glycol. The agglomerates

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of Hiroshi et al can have particles sizes falling within the claimed range (See examples and Col. 17, line 17). It would have been within the purview of one of ordinary skill to have determined the appropriate bulk density of the agglomerates needed to provide an efficiently molded article as recited in claim 18. Hiroshi et al show pressing forces falling within the claimed range of claim 19 while the formation of pellets would be clearly suggested to one of ordinary skill in the art because formation of pellets for subsequent molding procedures are well known in the molding arts. Consolidation or desired sintering temperatures in view of the teachings of Hiroshi et al would have been obvious to one of ordinary skill in the art (See Col. 6, line 67 ff). A helium sintering atmosphere is shown by Hiroshi et al.

Claims 8-13, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi et al (5,244,585) as applied to claim 1-7, 14-25, 28 and 30 above, and further in view of Biegler et al (3,383,172), Bergna et al (3,301,635) or Kreutzer et al (4,842,628).

Biegler et al disclose that silica produced by spray drying is available to the prior art in the form of spheres or hollow spheres (Col. 2, line 28 and Abstract). Similarly Bergna et al disclose that spray dried silica can be hollow when the particles are larger than 10 microns and further shows the use of ammonia to stabilize the slurries (See Col. 6, line 41 ff and Col. 9, line 45). The spray dried materials of Bergna et al can be molded (See Title). Thus it would have been obvious to use solid or hollow silica spheres in the molding process of the primary reference dependent on the desired density of the molded product and additionally obvious to employ ammonia to stabilize

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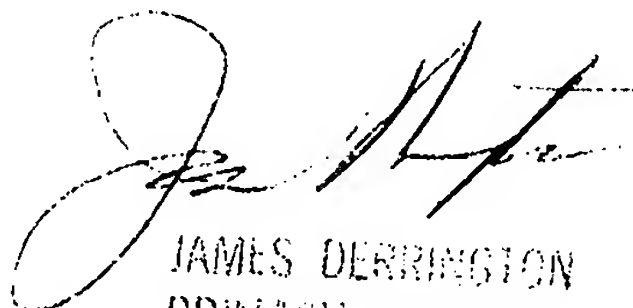
the slurry. Kreutzer et al show the alternative heat treatment of silica performs in a helium atmosphere or a vacuum (abstract). It would have been obvious to alternatively use a vacuum in the process of the primary reference in order to produce the art expected result of heat treating a silica perform.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Derrington whose telephone number is 703 308-3832. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-7718 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

jd
June 26, 2003


JAMES DERRINGTON
PRIMARY EXAMINER
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